THE SCOTTISH OFFICE

Environmental Protection Act 1990

Section 143

PUBLIC REGISTERS OF LAND WHICH MAY BE CONTAMINATED

A Consultation Paper

July 1991

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PUBLIC REGISTERS OF CONTAMINATIVE USES OF LAND

A CONSULTATION PAPER

1. INTRODUCTION

1.1 The Environmental Protection Act 1990, section 143 (reproduced at Annex A) places a duty on planning authorities to compile and maintain, in accordance with regulations, registers of land "which is being or has been put to a contaminative use".

1.2 Section 143 defines "contaminative use" as "any use of land which may cause it to be contaminated with noxious substances". Section 143 also empowers the Secretary of State to specify contaminative uses of the land, as well as the form of the registers and the particulars to be included in them, by regulations. The registers will be a compilation of site records and associated maps identifying land which is being or has been put to a contaminative use, and consequently which may be contaminated. The consultation paper discusses the difficulty of registers showing actual contamination of land.

1.3 This consultation paper explains the Government's policy on Section 143 registers, sets out proposals for the regulations and related guidance, and invites comments.

2. BACKGROUND TO POLICY ON REGISTERS

2.1 In 1985, The Royal Commission on Environmental Pollution recommended in its Eleventh Report (1) that the Government should consider whether contamination should be entered as a charge on the sites concerned in the registry of local land charges in England and Wales. The Government response to the Commission's report (2) confirmed that the identification of contaminated sites by means of land registers was being considered, and drew attention to the need to distinguish between actual and possible contamination.

2.2 In 1986 the Scottish Development Agency commissioned research into the information already available on publicly owned vacant, derelict and under used land and to consider the feasibility of inventories of this land being prepared and maintained by local authorities using compatible methods of data collection, storage and updating. The consultants recommended a "Scottish Vacant Land Survey", to include derelict land and buildings, and covering land in private as well as public ownership. Derelict land was defined as being land so damaged by industrial or other development as to be incapable of beneficial use without treatment. The survey has since been implemented and includes questions on contamination; the results of the 1988 pilot survey are available to local authorities.

2.3 In 1986 the Department of the Environment also commissioned research to develop methods for identifying sites which might be contaminated and to establish the feasibility of compiling a register of such sites. This was carried out in three districts in Cheshire with the cooperation of the authorities concerned (4).

2.4 The Tenth Report of the Royal Commission on Environmental Pollution (5) considered the issue of public access to environmental information held by pollution control authorities. It proposed the presumption of unrestricted access, with secrecy only where genuinely necessary. An inter-departmental working party was set up to advise the Government on this recommendation; many of the issues considered in its report (6) are relevant to policy on registers. The principle of free access has since been adopted in the European Council directive on public access to information on the environment (7).

2.5 In April 1988 Planning Advice Note 33 "Development of Contaminated Land" was issued by the Scottish Development Department giving advice to authorities and developers on the identification, assessment and development of contaminated land. It set out the planning approach, powers, responsibilities and financial assistance for dealing with the problem of contaminated land. It said that contamination or the potential for it was a material consideration which needed to be taken into account in the preparation of development plans and the determination of applications.

2.6 The PAN said that the possibility of contamination should be considered whenever it was proposed to reclaim, re-use or extend the use of land previously used for industrial purposes or waste disposal. While site investigation was normally for the developer, local authorities could contribute to site identification by providing information on site history and records of derelict and contaminated land. In carrying out this work it advocated close liaison between Planning and Environmental Health Departments, as well as consultation with specialist bodies such as the Health and Safety Executive and HM Industrial Pollution Inspectorate. These principles underpin the Government's approach to registers of contaminative uses under the Environmental Protection Act 1990. This took account of questions of policy on contaminated land, the problem of blight and the implications of the caveat emptor (buyer beware) principle for registers.

2.7 Following the publication of the PAN the Department of the Environment set up an official Working Party to consider the detailed feasibility, contents, uses and likely costs of registers of contaminated land.

2.8 While the working party was sitting, the report of the 1989 inquiry of the House of Commons Select Committee on the Environment into contaminated land (11) recommended legislation to require local authorities to compile registers of contaminated land, using methods to be laid down by Government. In addition the report of the Law Commission Standing Committee on Conveyancing considered that information of public concern or about matters with widespread effect, such as contamination of land, should be maintained on public registers.

2.9 The Working Party found that, while a variety of land use records existed for different purposes, there was no integrated source of information on contamination. Local registers of past and present land use data were therefore needed to identify land used for activities which may be contaminative. These registers would alert authorities, developers, landowners and other interested parties to the possibility of contamination.

2.10 The Working Party recommended legislation to require district councils (in England and Wales) to compile such registers, using a common methodology and drawing on guidance to be prepared by the Government. It also recommended further consideration of the _caveat emptor_ principle as it affects contaminated land, and of the risk that registers might cause blight.

2.11 The Working Party's principal conclusions and recommendations are set out in detail at Annex B. Copies of the report were placed in the House of Commons Library.

2.12 The Government's response to the Select Committee report on contaminated land, published in July 1990 (13), confirmed that local authorities would be required to compile registers. The report of the Cheshire pilot survey was also published (4) to inform discussion on the proposed methodology for compiling registers of contaminated land.

3. PRINCIPAL QUESTIONS OF POLICY

Contamination and Pollution

3.1 The Government share the view of the Royal Commission on Environmental Pollution (5) that contamination is not synonymous with pollution. The Commission regarded contamination as "a necessary but not a sufficient condition for pollution", and also noted that "What today is regarded as no more than contamination may tomorrow be pollution, as a substance accumulates to ..... harmful concentrations, or as knowledge is gained of hitherto unsuspected effects".

3.2 The Commission therefore used "contamination" to denote the presence in the environment of certain substances, without making a judgement on whether they are actually harmful. The use of the term in this paper follows this principle.

Impracticability of Registers of Actual Contamination

3.3 Registers showing actual contamination of land would require planning authorities to investigate many if not all of the sites considered for inclusion. This is not a practical possibility and would be prohibitively expensive. Assuming an average cost of £15,000 per hectare for investigations, it would cost some £111 million to investigate just the 7,400 hectares of derelict land identified in the 1988 Pilot Scottish Vacant Land Survey, and the total area of land included in Section 143 Registers will probably prove to be much greater than this. These investigations would also take many years to complete.

3.4 Registers of actual contamination are also impracticable for technical reasons. Selection of the most appropriate site investigation methods is based to a great extent on a preliminary assessment to establish the nature of contamination to be expected. This can only be done with knowledge of the history of the site. Investigations must also take into account the proposed future use of the site. There would also be questions related to the confidence given to the quantitative and qualitative anaylsis of the alleged contaminants. No investigation, therefore, could establish once and for all the contamination present at a site, or meet all possible future needs for information. In addition, methods of investigation change over time.

Recording of contaminative uses of land - Section 143.

3.5 Section 143(1) therefore requires the registers to "specify contaminative uses of land" (see Annex A). A "contaminative use" is defined as "any use of land which may cause it to be contaminated by noxious substances" (Section 143(6)). These uses will be specified in Regulations. The information to be recorded about such land will also be specified, and registers containing this information will be open to the public.

3.6 Section 143 also places a duty on planning authorities to compile and maintain the Registers, and make them available to the public. General, island and district planning authorities are judged to be most suited to this task because of their familiarity with the collection and analysis of land use data, and their direct experience of the Scottish Vacant Land Survey.

3.7 The identification and recording of land put to these uses will be based on research, drawing on maps and other documents. Many authorities will be able to make use of information on sites in their areas already compiled at national, regional and district levels. Registers in many cases will thus draw together existing information, rather than recording any data not previously available.

Methodology

3.8 The registers will be used by a wide range of individuals, interest groups, agencies and statutory bodies. Not all of them will have expertise in this field so the data will have to be clearly presented. This will be particularly true of the maps and the way they depict the sites in relation to their surroundings. To aid the users, especially those who will be using registers maintained by more than one authority, it will be necessary to adopt a standardised approach to completion, format and contents.

3.9 Authorities undertaking computerisation of register data will also need to use standardised methods, for similar reasons. These methods may have to take account of the geographical information systems already used by some planning authorities and by many of the bodies which will make use of registers.

3.10 A means of keeping the registers up-to-date will also be necessary. New entries will be made from time to time, and existing entries will have to be modified to record new uses of sites and amendments to data. It will be important to ensure, as far as possible, that users of register data have access to up-to-date copies of register entries. The Government therefore seeks views on methods of compilation and maintenance of registers, including sources to be consulted and the way in which the information should be recorded. Following this consultation paper, guidance will be issued.

3.11 It has also been suggested that planning authorities might consider setting up local groupings to identify possible sources and to coordinate research. Planning authorities also compile land use data for other purposes, such as the Scottish Vacant Land Survey and the Industrial Sites Register, which are likely to be relevant to registers.

Purposes and limitations of registers

3.12 Section 143 requires registers to record land which is being or has been put to a contaminative use (as defined in the Act). They are not intended to deal with substances such as radon gas or naturally occurring arsenic. The Government is undertaking a parallel project to identify such naturally occurring substances.

3.13 The Government accept that no methodology can ensure that all land which may be contaminated will be identified. It will be impossible, for example, to identify all sites of unauthorised dumping of wastes or accidental spillages of harmful material. It is also recognised that the methodology proposed means that Section 143 registers will not specifically identify land which may be contaminated by activities on adjacent or nearby sites. Such land can only be identified by other methods.

3.14 Registers will however provide a record of a large proportion of the land which may be contaminated. Through the use of predictive modelling or other assessment methods, registers will also help to identify sites which may be affected by the migration of contaminants. Advances in site investigation techniques, particularly remote sensing, will also help to locate and identify contamination.

3.15 Registers are only a part of a wider strategy for dealing with contaminated land. They should be regarded as a first step which will enable appropriate action to be taken when necessary. Guidance will be provided on the interpretation and use of information on registers.

Protection of confidential information

3.16 Section 143 registers must be consistent with the European Council directive on freedom of access to information on the environment (7). However, the directive recognises the need to protect information which is commercially confidential or which if released could endanger national security. Certain information provided voluntarily may also require protection. (The Royal Commission on Environmental Pollution also noted the importance of protecting such information in its Tenth Report (5)).

4. CONSEQUENCES OF REGISTERS

Blight and public concern

4.1 The Government recognise the possibility that a register entry may cause the value of a site, or that of adjacent properties, to fall, or in extreme cases may make sale impossible. Register entries could also give rise to public concern, irrespective of whether or not there was a reasonable cause.

4.2 These possibilities are inherent in any attempt to identify land which may be contaminated. A Welsh Office survey (3) attempted to deal with this problem by excluding sites of less than 0.5 hectare and sites in active use, but the effect, was that many sites subject to contaminative use remained unrecorded.

4.3 It has to be recognised that the potential for blight and concern arising from contaminative uses is always present. Much of the information to be included on registers is however already public knowledge, or could easily be discovered. The Government takes the view that, in all but the very short term, it is better for everyone concerned to be aware of possible contamination. This will enable investigations to be carried out if required and is likely to speed rather than inhibit re-use.

4.4 The experience of many local authorities suggests that the best response to public concern and media interest is a policy of openness and cooperation with the community and residents' groups. Clear information and prompt replies to queries help to avoid the spread of uncertainty and unfounded rumours. The Government is considering the need for further action on the issues of blight and public concern.

4.5 The Government would welcome the views and experiences of consultees on the problems of blight and public concern.

Landowners' responsibilities

4.6 The existence of registers will not alter the responsibility of the landowner to ensure that his land does not threaten "controlled waters" (as defined in the Water Act 1989 Part III), or present a statutory nuisance (as defined in the Environmental Protection Act 1990 Part III). Nor will the registers affect the responsibilities under the Control of Pollution Act 1974 of persons who with the consent of the river purification authority, discharge effluent into controlled waters or deposit the solid refuse of a mine or quarry on land.

5. GOVERNMENT PROPOSALS FOR REGISTERS

Statutory requirements

5.1 Regulations under Section 143 will prescribe:

5.1.1 Contaminative land uses: A provisional schedule of contaminative uses is at Annex C. Consultees are invited to suggest other uses for possible inclusion in the list.

5.1.2 Particulars which must be included in the registers: The main headings of Annex D indicate the categories of information which may be included. Consultees are invited to suggest other categories for possible inclusion.

5.1.3 Requirements for notification of owners: Authorities will not be required under the Regulations to notify individual landowners that sites in their ownership have been included in registers. Instead it is proposed that authorities publish notices in local newspapers when registers are opened to the public, and from time to time thereafter. The Government intend to produce national publicity on registers when the

Regulations are laid and again when registers are opened to the public. The latter may take the form of a leaflet. The views of consultees on the question of publicity for individual registers will be welcomed.

5.2 The registers will be compiled and maintained on the basis of "the information available to the authority from time to time". Planning authorities will have a duty to amend any information in registers when they identify, or are notified of, inaccuracies.

5.3 Sites which have been investigated and/or treated must not be removed from registers. Registers are intended to identify land which is or has been put to a contaminative use. Investigation and/or treatment of contamination do not change the facts about uses of the land. Nor can they eliminate the possibility that some form of contamination may remain at the site, or that previously unknown risks may be discovered.

5.4 There are no specific powers for authorities to obtain information from landowners or others for the purpose of the register.

Guidance

5.5 Guidance will be provided on the matters subject to Regulations. This will include the following:

5.5.1 The methodology for compiling registers. A draft is at Annex E. The Government will strongly recommend that certain sources should be consulted in the compilation of the registers. A provisional list of these sources is at Annex F.1. Guidance will however also identify other sources which authorities may find helpful; a provisional list of these is at Annex F.2 Consultees are invited to suggest other sources for inclusion in either list. A master record of the main sources consulted, showing where they can be found whenever possible, should be available with the register. Annex G sets out some additional considerations on the use of computer systems in the compilation, maintenance and use of registers.

5.5.2 The format in which the information is to be recorded. This is illustrated at Annex H.

5.5.3 The technical accuracy of information recorded. This is set out in Annex I.

5.5.4 A warning on the register. A prominent warning should be included in registers and in information about their use, making clear to users that the entries record "land which is being or has been put to a contaminative use". It should explain that registers must not be thought to identify all land subject to contamination, or to indicate that contamination is known to be present at a site.

5.6 Where it is known that a site has been investigated and/or treated for contamination, the register entry should state the date and nature of this work and refer to any report which may have been prepared. It should however make no assessment of the condition of the site; this should always be reserved for professional judgement, at the time when it is needed and in the light of the latest knowledge.

5.7 Authorities should be aware of the provisions of the EC Directive on freedom of access to information on the environment (7) and should satisfy themselves that a genuine case for confidentiality exists before withholding any information which would normally be included in registers. Where this condition is met, the information concerned must be effectively protected.

5.8 The Environmental Protection Act places the duty to compile and maintain the registers on planning authorities. It will however be for each local authority to determine exactly how this is fulfilled bearing in mind the resources of other departments, (eg Building Control, Estates and Environmental Health). The information on registers will be relevant to a wide range of local authority functions and wide internal consultation will be necessary during their compilation.

5.9 Planning authorities may be requested to provide copies of their register data to certain statutory bodies, including regional or district councils as appropriate, Waste Regulation Authorities, the River Purification Authorities and the Nature Conservancy Council for Scotland.

Profiles of Contaminative Uses

5.10 Information which will be useful in the assessment of registered sites will be provided in profiles of contaminative uses. These will include brief descriptions of the main features of the processes and operations concerned, the raw materials used, by-products and waste products and other information. The Scottish Office in association with the Department of the Environment will provide profiles of the contaminative uses specified in the Regulations. The proposed contents of a typical profile of a contaminative activity are shown at Annex J.

5.11 Current UK practice on site assessment uses a range of "trigger values" for certain contaminants and end uses, together with other environmental criteria, to assess a site and any treatment. A Government study group is currently considering the whole issue of risk assessment for contaminated land, with a view to establishing more detailed guidelines for assessment of the significance of contamination and development of standards for remediation.

5.12 The Government is the main sponsor of a research project being carried out by the Construction Industry Research and Information Association (CIRIA) into the provision of guidance on a wide range of issues relating to the assessment and treatment of contaminated land.

6. USES OF REGISTERS

6.1 The most frequent users of the registers are likely to be local authorities, landowners and potential purchasers or developers, wishing to inform themselves of the possibility of contamination, and by reference to the profiles, identify the type(s) of contamination which may be present.

6.2 Registers will also assist local authorities in carrying out many of their statutory functions, both in dealing with individual cases and in developing management strategies. For example, they will help to establish strategies for contaminated land within structure and local plans, and to develop standard planning conditions; they will enable environmental health departments to identify potential threats to public health and to respond to pollution incidents or requests for information; and they will provide information to engineering departments for use in design work and scheduling of inspection programmes.

6.3 Other users of registers will include: Waste Regulation Authorities; the River Purification Authorities; the Health and Safety Executive; Government departments, including the Scottish Office Inquiry Reporters Unit; the emergency services, statutory undertakers and other public utilities; insurers, financial institutions and others involved in land transactions and valuations; the Nature Conservancy Council for Scotland; and special interest groups such as academic researchers and scientific, historical and archaeological societies.

6.4 Many users of registers, both within and outside local authorities, will need to combine information from registers with information collected for other purposes. It is also likely that some information will be obtained in the course of compiling registers which will not be included in any register entry, but which might be useful for other purposes. This will provide opportunities for the use of "expert systems" to draw information together for different applications. The Government is reviewing these wider uses of register information, including the use of computerised databases and geographical information systems.

7. COSTS AND TIMESCALE FOR COMPILING REGISTERS

Costs and resources for local authorities

7.1 From the pilot study and general experience of similar types of work undertaken by local authorities, the Government estimates that staff input per authority is likely to be some 12 person-months to compile a register. The staff involved do not need any specialised training or experience. The most important requirements are the ability to interpret maps and a thorough and systematic approach to the work.

7.2 Costs and timescale will naturally vary between authorities, depending on their size, history of industrial development and other factors, but it is estimated that the costs of compiling registers in the form proposed would average between £35,000 and £40,000 per authority. This is being taken into consideration in the Local Authority Finance Settlement for 1992/93.

7.3 Once registers are established, their maintenance and updating could be undertaken mainly by junior staff with appropriate supervision. The tasks would not require a full time staff input.

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The annual maintenance cost for authorities in Scotland is estimated at not more than £8,000.

Programme for Regulations and compilation of registers

7.4 It is currently planned to introduce Regulations on the form of the registers, the contaminative uses of land to be covered, and the information to be included, to take effect on 1 April 1992.

7.5 It is proposed that authorities will be required to begin compiling registers on 1 April 1992 (the date when the regulations will come into force), and to open registers for public inspection on 1 April 1993 (when Section 143(4) will be brought into force).

REFERENCES

1. Eleventh Report of the Royal Commission on Environmental Pollution: "Managing Waste: The Duty of Care". HMSO, 1985.

2. The Government's Response to the Eleventh Report of the Royal Commission on Environmental Pollution (Pollution Paper No 24). HMSO, 1986.

3. Survey of Contaminated Land in Wales. Welsh Office, 1988.

4. Pilot Survey of Potentially Contaminated Land in Cheshire - A Methodology for Identifying Potentially Contaminated Sites. Report to DOE by Environmental Resources Limited. DOE, 1990. (Available from DOE Publications Sales Unit, Building 1, Victoria Road, South Ruislip HA4 0NZ).

5. Tenth Report of the Royal Commission on Environmental Pollution: "Tackling Pollution - Experience and Prospects". Cmnd 9194. HMSO, 1984.

6. Public Access to Environmental Information: Report of a Working Party (Pollution Paper No 23). HMSO, 1986.

7. European Council Directive on the freedom of access to information on the environment (90/313/EC), Official Journal of the European Communities No L158/56, 23 June 1990.

8. Department of the Environment Circular 21/87 (Welsh Office 22/87): Development of Contaminated Land. HMSO, 1987.

9. House of Commons Select Committee on the Environment: First Report on Contaminated Land. House of Commons Paper 170-I. HMSO, 1990.

10. "Let the buyer be well informed." Recommendations from Conveyancing Standing Committee of the Law Commission. Law Commission, 1989.

11. Department of the Environment: The Government's Response to the First Report from the House of Commons Select Committee on the Environment on Contaminated Land. Cm 1161. HMSO, 1990.

Public registers of land which may be contaminated.

143.—(1) For the purposes of the registers to be maintained under this section, the Secretary of State may, by regulations—

(a) specify contaminative uses of land;

(b) prescribe the form of the registers and the particulars to be included in them; and

(c) make such other provision as appears to him to be appropriate in connection with the maintenance of the registers.

(2) It shall be the duty of a local authority, as respects land in its area subject to contamination, to maintain, in accordance with the regulations, a register in the prescribed form and containing the prescribed particulars.

(3) The duty imposed by subsection (2) above on a local authority is a duty to compile and maintain the register from the information available to the authority from time to time.

(4) A local authority shall secure that the register is open to inspection at its principal office by members of the public free of charge at all reasonable hours and shall afford to members of the public reasonable facilities for obtaining, on payment of reasonable charges, copies of entries in the register.

(5) Regulations under subsection (1)(c) above may prescribe the measures to be taken by local authorities for informing persons whose land is the subject of entries in a register about the entries or for enabling them to inform themselves about them.

(6) In this section—

"contaminative use" means any use of land which may cause it to be contaminated with noxious substances;

"land subject to contamination" means land which is being or has been put to a contaminative use;

"local authority" means—

(a) in Greater London, a London borough council or the Common Council of the City of London;

(b) in England and Wales outside Greater London, a district council;

(c) in Scotland, a planning authority; and

(d) the Council of the Isles of Scilly; and

"substance" means any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour.

ANNEX B: FINDINGS OF THE DOE WORKING PARTY ON REGISTERS

The Working Party's principal conclusions and recommendations were that:

1. "no present Government policies explicitly require the creation of registers of contaminated land, (although) a number of diverse, and sometimes overlapping, land use records exist for particular policy objectives".

2. "an integrated source of information is required as a basis for dealing with problems of contamination. Local registers of historic and current land use data (would) provide a reliable means of identifying land used for activities with a potential for contamination.... Registered site information would alert authorities, developers and landowners to the need to survey sites (for) possible contamination when considering redevelopment or changing uses of land".

3. Legislation should therefore be sought "requiring district councils in England and Wales to compile such registers, on a basis and timescale to be determined by the Secretary of State" and making use of a common methodology.

4. Compilation of registers by district councils in England and Wales could entail an estimated total initial cost of around £7.5m and total annual running costs estimated at between £0.25m and £1.0m.

5. Further consideration should be given to the implications for potentially contaminated land of the review of caveat emptor by the Law Commission Standing Committee on Conveyancing (12).

6. "any information on potential contamination carries the risk of blight, and this requires careful handling of disclosure of information and the development of any programme of action.... All those involved (would have to understand that) registers are an aid to assessment of land development needs and not an immediate classification of contaminated sites".

7. To help local authorities to prepare and use registers, DOE should develop "lists and profiles of potentially contaminating processes and activities".

ANNEX C: SCHEDULE OF CONTAMINATIVE USES

Notes:

1. "Contaminative use" is defined in Section 143 of the Environmental Protection Act 1990 as "any use of land which may cause it to be contaminated with noxious substances".

2. "Land" includes: any ground, soil or earth; houses or other buildings; the air space above it; but excludes all mines or minerals beneath it. It also includes land used for integral, partial and ancillary processes which form part of the primary use.

3. A contaminative use is not be taken to fall into the description if it is carried out as a domestic activity in connection with a private dwelling.

4. The uses of land in this Annex have been included because they may make use of or give rise to noxious substances which may persist in the land where the use took place. It is intended that land uses which may have been contaminative in the past, but are not now, will be covered by the definitions of specific processes below.

5. It is proposed that certain uses of land which may be contaminative are excluded from Section 143 registers because the location of the use cannot be defined sufficiently precisely. For example, it would be impossible to establish all locations where asbestos products have been used.

6. The titles of the main profiles relevant to each description of use are given in brackets.

Uses for the following purposes are contaminative:-

C.1 AGRICULTURE

a. Burial of diseased livestock (Profile: to be determined).

C.2 EXTRACTIVE INDUSTRY

a. Extracting, handling and storage of carbonaceous materials such as coal, lignite, petroleum, natural gas, or bituminous shale (not including the underground workings) (Profiles: Coal mines and coal preparation plants; Oil refineries and petrochemicals).

b. Extracting, handling and storage of ores and their constituents. (Profiles: Mineral workings; Mineral processing works).

Note: Handling includes loading, transport, sorting, forming and packaging and similar operations. Ore means any mineral, including non-metal bearing, except fuels.

C.3 ENERGY INDUSTRY

a. Producing gas from coal, lignite, oil or other carbonaceous material (other than from sewage or other waste), or from mixtures of those materials. (Profiles: Gasworks and coal carbonisation plants; Oil refineries).

b. Reforming, refining, purifying and odourising natural gas or any product of the processes outlined in C.3.a) above. (Profiles: Gasworks and coal carbonisation plants; Oil refineries).

c. Pyrolysis, carbonisation, distillation, liquefication, partial oxidation, other heat treatment, conversion, purification, or refining of coal, lignite, oil, other carbonaceous material or mixtures and products thereof, otherwise than with a view to gasification or making of charcoal. (Profiles: Gasworks and coal carbonisation plants; Oil refineries; Coal mines and coal preparation plants).

d. A thermal power station (including nuclear power stations and production, enrichment and reprocessing of nuclear fuels). (Profiles: Power stations; Radioactive materials; Asbestos works).

e. Electricity sub-station. (Profiles: Power stations; Electrical equipment).

C.4 PRODUCTION OF METALS

a. Production, refining or recovery of metals by physical, chemical, thermal or electrolytic or other extraction process. (Profiles: Metal processing; Heavy engineering).

b. Heating, melting or casting metals as part of an intermediate or final manufacturing process (including annealing, tempering or similar processes). (Profiles: Metal processing; Heavy engineering; Miscellaneous (High Street) trades).

c. Cold forming processes (including pressing, rolling, extruding, stamping, forming or similar processes). (Profiles: Metal processing; Heavy engineering; Electroplating and metal finishing).

d. Finishing treatments, including anodising, pickling, coating, and plating or similar processes. (Profiles: Metal processing; Heavy engineering; Electroplating and metal finishing; Miscellaneous (High Street) trades).

Note: Metals are taken to include metal scrap.

C.5 PRODUCTION OF NON-METALS AND THEIR PRODUCTS

a. Production or refining of non-metals by treatment of the ore. (Profile: Mineral processing works).

b. Production or processing of mineral fibres by treatment of the ore. (Profiles: Mineral processing works; Asbestos works).

c. Cement, lime and gypsum manufacture, brickworks and associated processes. (Profile: Mineral processing works).

C.6 GLASS MAKING AND CERAMICS

a. Manufacture of glass and products based on glass. (Profile: Glass manufacturing).

b. Manufacture of ceramics and products based on ceramics, including glazes and virtuous enamel. (Profile: To be determined).

C.7 PRODUCTION AND USE OF CHEMICALS

a. Production, refining, recovery or storage of petroleum or petrochemicals or their by-products, including tar and bitumen processes and manufacture of asphalt. (Profiles: Oil refineries and petrochemicals; Mineral processing works; Drum and tank cleaning).

b. Production, refining and bulk storage of organic or inorganic chemicals, including fertilisers, pesticides, pharmaceuticals, soaps, detergents, cosmetics, toiletries, dyestuffs, inks, paints, fireworks, pyrotechnic materials or recovered chemicals. (Profiles: Bulk inorganic and organic chemicals; Fine chemicals; Fertiliser manufacture; Pesticides; Pharmaceuticals; Textile and dye industry; Paint and ink manufacture; Miscellaneous (High Street) trades; Drum and tank cleaning).

c. Production, refining and bulk storage of industrial gases not otherwise covered. (Profile: Fine chemicals).

C.8 ENGINEERING AND MANUFACTURING PROCESSES

a. Manufacture of metal goods, including mechanical engineering industrial plant or steelwork, motor vehicles, ships, railway or tramway vehicles, aircraft, aerospace equipment or similar equipment. (Profiles: Heavy engineering works; Engineering works; Car manufacturing works; Shipbuilding).

b. Storage, manufacture or testing of explosives, propellants, ordnance, small arms or ammunition. (Profile: Heavy engineering).

c. Manufacture and repair of electrical and electronic components and equipment. (Profiles: Electrical and electronic equipment manufacture; Miscellaneous (High Street) trades).

C.9 FOOD PROCESSING INDUSTRY

Manufacture of pet foods or animal feedstuffs. (Profile: Food preparation and processing).

C.10 ANIMAL BY-PRODUCT PROCESSING

Processing of animal by-products (including rendering or maggot farming, but excluding slaughterhouses, butchering). (Profile: Animal processing works; Miscellaneous (High Street) trades).

C.11 PAPER, PULP AND PRINTING INDUSTRY

a. Making of paper pulp, paper or board, or paper or board products, including printing or de-inking. (Profiles: Pulp and paper manufacture; Printing works; Miscellaneous (High Street) trades).

C.12 TIMBER AND TIMBER PRODUCTS INDUSTRY

a. Chemical treatment and coating of timber and timber products. (Profiles: Wood preservative industry and timber treatment works; Miscellaneous (High Street) trades).

C.13 TEXTILE INDUSTRY

a. Tanning, dressing, fellmongering or other process for preparing, treating or working leather. (Profiles: Animal processing works; Miscellaneous (High Street) trades).

b. Fulling, bleaching, dyeing or finishing fabrics or fibres. (Profiles: Textile and dye industry; Miscellaneous (High Street) trades).

c. Manufacture of carpets or other textile floor coverings (including linoleum works). (Profile: Textile and dye industry).

C.14 RUBBER INDUSTRY

a. Processing of natural or synthetic rubber (including tyre manufacture or retreading). (Profiles: Fine chemicals; Tyre manufacture).

C.15 TRANSPORT INDUSTRY

a. Marshalling, dismantling, repairing or maintenance of railway rolling stock. (Profile: Heavy engineering; Docks and railway land).

b. Dismantling, repairing or maintenance of marine vessels, including hovercraft. (Profiles: Shipbuilding and shipbreaking; Docks and railway land).

c. Dismantling, repairing or maintenance of road transport or road haulage vehicles. (Profiles: Road transport and road haulage; Garages and filling stations).

d. Dismantling, repairing or maintenance of air or space transport systems. (Profiles: Engineering works; Airports).

C.16 WASTE DISPOSAL

a. Treating of sewage or other effluent. (Profile: Sewage works and farms).

b. Storage, treatment or disposal of sludge including sludge from water treatment works. (Profile: to be determined).

c. Treating, keeping, depositing or disposing of waste, including scrap (to include infilled canal basins, docks or rivercourses). (Profiles: Landfills and other waste treatment and disposal sites; Scrapyards; Drum and tank cleaning).

d. Storage or disposal of radioactive materials. (Profile: Radioactive materials).

C.17 MISCELLANEOUS

a. Premises housing dry cleaning operations. (Profile: Miscellaneous (High Street) trades).

b. Laboratories for educational or research purposes. (Profiles: Research laboratories; Miscellaneous (High Street) trades).

c. Demolition of buildings, plant or equipment used for any of the activities in this schedule. (Profile: Demolition).

ANNEX D: INFORMATION TO BE INCLUDED IN SECTION 143 REGISTERS

The following information should be included in registers, where available.

Identifying Information

Record number of the site of contaminative use:

Customary name of site (if any):
Local Authority:
Region(s) or Islands Area in which site lies:
District(s) in which site lies:
Civil parish(es)/ward(s) in which area lies:

Number of the current Ordnance Survey map(s) where the site lies, sheet number(s), scale (1:1250, 1:2500 or 1:10,000, 1:10560 whichever is largest available): Base map number in planning authority reference system:

Date of entry/last update of any part of record:

Area

Cycle of polygon vertices, in clockwise direction each vertex recorded using OS National Grid References. (Per coordinate: NGR 100 km square, NGR Easting - 5 digit, NGR Northing - 5 digit.):

Area (hectares):

Reference(s) to source map(s) and other material indicating boundary of area.:

Indication whether or not source information corresponds accurately to the modern map.:

Date of entry/last update of this section:

Address - Historic

(enter information available, list all known addresses)

Name of site/building:
Number of site/building, OR range of numbers along a street with indication whether numbers are all odd, all even, or odd and even:
Road/Street name and number:
Village/Area name:
Town/City name:
Postcode:

Reference(s) to material giving addresses:

Date of entry/last update of this section:

Address - current

(if area(s) correspond to current site(s), list all known addresses)

Name of site/building:

Number of site/building, OR range of numbers along a street with indication whether numbers are all odd, all even, or odd and even:
Road/Street name and number:
Village/Area name:
Town/City name:
Postcode(s) and single grid reference per post code:

Date of entry/last update of this section:

History of use

(complete following for all uses found)

Use:
Operator using land:
Start and end dates of use (if known):
List of references to all source material indicating use:
Earliest and latest dates of publications indicating this use:

References to use records, in other area(s) which the use covered as one site:

Date of entry/last update of this section:

Summary of uses

For each use listed:

Reference to schedule of contaminative uses:
Description of use in source:
Dates:

Current use

State whether: residential; commercial; industrial; amenity; vacant; other (specify)

Reference to any site investigation or treatment:

Investigation:
Date(s) of investigation and report reference(s):

Type of treatment: Excavation and/or removal; containment on site; biological; physico/chemical; thermal; other (specify) Date(s) of treatment and report reference(s):

References to profiles etc

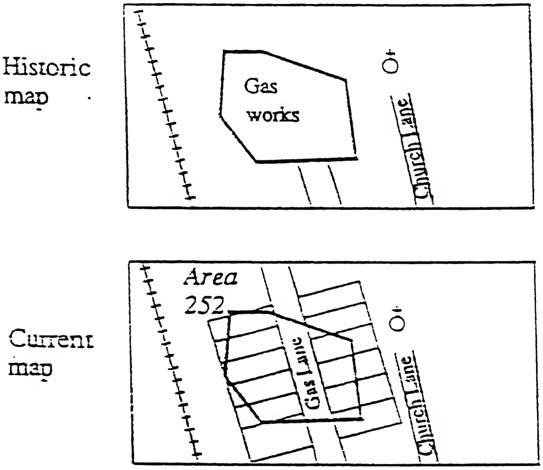
List of references to relevant profiles and other ICRCL notes:

ANNEX E: PROPOSED METHODOLOGY FOR COMPILATION OF REGISTERS

Note: The sequence is not intended to be rigid; in practice, the steps will overlap. For example, Step 4 may take several months, and other tasks could be undertaken during this time (eg from Steps 5, 6, and 7).

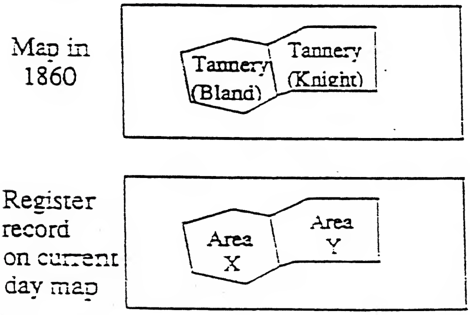
Step 1	A set of current Ordnance Survey maps should be prepared for the whole of the authority's area to provide the register's base map. For each part of the area, the largest available scale should be chose (1:10000/1:10560, 1:2500 or 1:1250) ie the larger, more detailed map should be chosen if it is available. The base maps should be indexed to a key map using the OS reference numbers on the planning authority's own system. Where a base map is covered in part by another map at a larger scale, the former should indicate the extent of the latter and give its reference number.
Step 2	An authority-wide list of all available historical OS maps at the scales suggested in Annex D1 should be prepared. Authorities should first look to their own records or the Local Authority Record Office, then to other local sources, then to Ordnance Survey and finally, if necessary, to the National Library of Scotland Map Library.
Step 3	Local archives, libraries, Record Offices etc should be visited to identify both the local availability of the maps and other useful sources such as 1:500 town maps, books, pamphlets, local museums, old-established industries etc.
Step 4	The maps and other sources should be systematically searched to identify sites of contaminative uses and the information transferred to standard format data sheets and base maps. Sites should be given a reference number and marked on to the largest scale base map as they are identified. Sites should ultimately be displayed on the base maps, as shown in figures 1 to 4.
Step 5	Important secondary sources for the local area should be searched. In urban areas a search of selected early trade directories (say every 8-15 years) should be made. Streets containing several trades specified as contaminative uses should be identified.
Step 6	Local knowledge, eg of industry and Council staff, should be sought as appropriate.
Step 7	Limited cross-checking of the survey data is recommended, eg using more detailed sources to check the efficiency of site identification in several sub-areas.
Step 8	Check status of "works", "holes in the ground", diverted watercourses, filled canals etc.

Figure 1 Transfer of historic site to current map



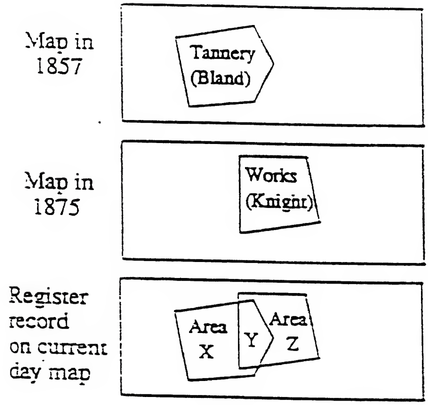
Area 252: Gas works, etc.

Figure 2 Separate uses



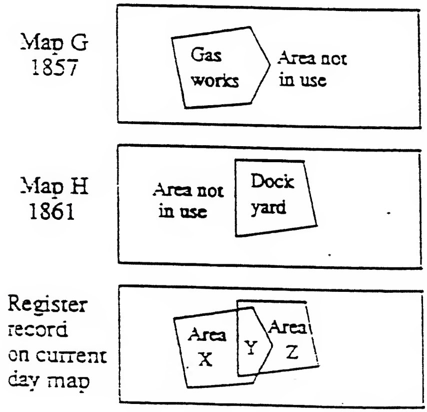
Area X: 1) Tannery 1860 map
Area Y: 1) Tannery 1860 map
etc.

Figure 3 Different lists of use



Area X: 1) Tannery 1857 map
reference area Y use 1
Area Y: 1) Tannery 1857 map
reference area X use 1
2) Works 1875 map
reference area Z use 1
Area Z: 1) Works 1875 map
reference area Y use 2

Figure 4 Contradictory area information



Source P indicates
use existed 1843-1872

Source Q indicates
use existed 1848-1869

Area X: 1) Gas works 1857 map G
contradicts area Y use 2
Area Y: 1) Gas works 1857 map G
reference area X use 1
2) Dock yard 1861 map H
reference area Z use 1
uses 1 and 2 contradict
Area Z: 1) Dock yard 1861 map H
contradicts area Y use 1

ANNEX F: LIST OF SOURCES

NOTE: This list is provisional. Sources and organisations listed are still in the process of confirmation.

F.1 PRINCIPAL SOURCES

The Government strongly recommends that the following sources should be consulted:

MAPS: All editions of the following series:

OS County Series (6 inch), National Series 1:10560 and 1:10000

The counties were surveyed at the 6 inch scale in the mid 1800s. The replacement national series at a scale of 1:10560 is itself being superseded by the 1:10000 series. For rural and semi-rural areas, these maps will locate almost all industrial sites, but they are less helpful for densely developed areas. Identification of operations on the 6 inch and 1:10560 series varies between counties; on the 1:10,000 series all industrial sites are described as works or factories.

OS County Series 25 inch (1:2,500)

Coverage: all of Great Britain except (i) urban areas covered by 1:1250 series since 1945 and (ii) rural areas including mountain and moorland covered only at 1:10,000/1:10560 scale.

OS 1:1250

Begun after 1945. Coverage: main urban areas only. Essential source for densely developed areas.

COLLATED SOURCES

Scottish Vacant Land Survey

The pilot survey was undertaken in 1988 and the first full survey is in progress. It includes data on the previous use(s) of the land. Vacant land in urban areas and derelict land irrespective of location is included in the survey, but sites below 0.1 hectare are excluded! The survey will be a primary source of information.

Waste disposal site licences, licence applications and local authority resolutions (where available)

Records of waste disposal site licenses (granted under the Control of Pollution Act 1974) are held by Waste Disposal Authorities. Licensing began in Scotland in 1978, although records for closed sites are not stored indefinitely. They identify sites and types of waste permitted. Authorities may however have records of sites prior to the 1974 Act. Data for registers must be extracted empirically. (Similar records will be held by Waste Regulation Authorities once the new licensing provisions of the Environmental Protection Act 1990 have been implemented.

Records of premises regulated under the Radioactive Substances Act 1960

Records held by HMIPI of premises on which radioactive material is kept or used, and on or from which accumulation and disposal of radioactive waste takes place.

Registers of Premises

Registers compiled by Environmental Health Departments. These only give addresses for active sites, but records are comprehensive and accessible.

HMIPI public registers

Authorisations under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991 SI 472.

Planning registers

Registers of planning applications and decisions kept by planning authorities under the Town and Country Planning (General Development) (Scotland) Order 1981.

National Archaeological Record and National Building Record

These records are held by the Royal Commission on Ancient and Historical Monuments of Scotland. The NAR has details of archaeological sites in Scotland (including industrial and military sites). The NBR includes the National Record of Industrial Monuments. Computerised statutory lists of buildings of architectural or historic interest are currently being compiled.

Dedicated sites for sludge disposal

Dedicated sites used for the disposal of sludge under the Sludge (Use in Agriculture) Regulations 1989 will be held as appropriate by Regional and Islands Councils and the River Purification Boards.

F.2 OTHER SOURCES

Authorities may find the following sources provide useful supplementary information:

MAPS

1:500 Town Maps

Most towns and cities mapped only once, ca 1863-93. A useful cross-check because of detailed information on sites.

Other maps based on Ordnance Survey

British Geological Survey series: mostly small scale (1:63,360 or 1:50,000), but may show details of military installations which are blank on other OS maps.

Soil survey and land capability are mapped at various scales for Scotland by the Macaulay Land Use Research Institutue. The biophysical characteristics of areas of significance for arable farming are mapped at 1:25000, 1:50000 and 1:63360. Hill and moor are mapped at 1:250000. Land capability maps at 1:50000 exist for areas of arable significance while there are further maps at 1:250000 for forestry.

Maps other than Ordnance Survey

Enclosure Plans

Settlement Plans

Early County Maps

Parish and Ward maps

Specialised Town Plans, eg public health maps

Plans of public and statutory undertakings, eg canals, railways, gas and water installations. Railways have been very well mapped (Jowett's Atlas is the most complete source). Canal records and plans are held by the British Waterways Board Archives. The House of Lords Record Office holds records of Private Bills referring to proposed, railways and other public undertakings; duplicate copies are normally held by local record offices.

Industrial maps

Fire Insurance plans for 46 major towns, 1885-1940, 1:480, published by Chas E Goad Ltd.

AERIAL AND SATELLITE PHOTOGRAPHS

Aerial photographs

Coverage of most of Scotland from 1946 onwards is held by the Air Photographs Unit of The Scottish Office Environment Department. An important source of data on past and present industry and disturbed land, but some training and experience is needed to interpret photographs.

Satellite imagery

Only recommended if authority already has images and has personnel skilled in interpreting them.

COLLATED SOURCES

DoE 1973/74 Survey of landfill sites

Desk study by the Institute of Geological Sciences (now the British Geological Survey) on behalf of DoE in co-operation with local authorities, of landfill sites to assess potential risks of groundwater and surface water contamination - the subject of articles by the "Observer" newspaper in February 1990. Covered some 2,500 sites then active in England, Scotland and Wales. Not all LA areas covered.

Records of burial sites of diseased animals

The notifiable diseases section of the Ministry of Agriculture, Fisheries and Food records burial sites of herds or flocks slaughtered because of notifiable diseases. In addition, records for the most recent 5-7 years are held by Department of Agriculture and Fisheries for Scotland Animal Health Offices. Local authorities are responsible for disposal of carcasses of animals infected with anthrax.

Regional Council (Water Authority) and River Purification Authority Records

These may have information on waste sites before the introduction of registration under CoPA. Industrial effluent discharge consents may also help to locate contaminative processes.

Directories

Local street and town directories date back to the 1820s eg Pigott's, Slater's and Kelly's and Post Office directories. A collection covering the whole country is available at the Guildhall Library, London. Some are also available in the Mitchell Library, Glasgow, the National Library of Scotland and Edinburgh City Library, where bibliographics may also be held.

Many trade associations and other publishers also issued trade and business directories.

Local archives and societies

Local history collections containing books of local interest, maps, photographs, street directories etc.

Local museums sometimes hold material on local industries.

Historical archives and societies exist in most areas, and are worth consulting selectively. The network of Industrial Archaeology Panels convened by the Council for British Archaeology should be consulted as the main coordinating bodies for industrial archaeology in their areas.

Industrial sources

Company histories may contain plans of sites and other useful information. A major collection of company histories is available at the Business Archives Council, but local firms may be covered by local libraries. Archives of firms that have ceased trading may be deposited in the Scottish Record Office. The British Coal Mining Reports Office holds records of mining activity. Scottish Enterprise may also hold details of sites recovered for non-industrial uses under Land Reclamation Schemes.

Local knowledge

Many individuals, such as former or current employees of the industries concerned or of the local authority, may have information about sites or records.

F.3 PROPOSED LIST OF ORGANISATIONS FROM WHICH INFORMATION OR ADVICE CAN BE OBTAINED

Note: Profiles of contaminative processes will identify sources of information on specific industries.

The organisations listed below may charge a fee for information.

1. Association of Independent Museums, Dundee Industrial Heritage, 26 East Dock St, Dundee DD1 9HY.

2. Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford TF8 7AW. (The Association has no full time staff but may be able to offer contact addresses for specialist societies or individuals.)

3. British Coal Mining Reports Office, 5-11 Murdendean Road, Newtongrange, EH22 4PE.

4. British Geological Survey, Murchison House, West Mains Road, Edinburgh EH9 3LA.

5. National Library of Scotland, Map Library 33 Salisbury Place, Edinburgh EH9 1SL.

6. Business Archives Council, 185 Tower Bridge Road, London SE1 2UT.

7. Chas E Goad Ltd, 8-12 Salisbury Square, Old Hatfield, Herts AL9 5BR.

8. Scottish Record Office, Register House, Edinburgh EH1.

9. Geological Museum, Exhibition Road, London SW7 2DE.

10. Kelly's Directories Archives Section, IPC Business Press Ltd, Quadrant House, The Quadrant, Sutton SM2 5AS.

11. Local libraries and museums (listed in "Record Repositories in Great Britain: A Geographical Directory", 9th edition (in preparation), published by HMSO for the Royal Commission on Historical Manuscripts).

12. Macaulay Land Use Research Institute, Craigiebuckler, Aberdeen AB9 3BU.

13. Mining Records Office, HM Inspectorate of Mines, Health & Safety Executive, St Annes House, University Road, Bootle L20 3RA.

14. Ministry of Agriculture Fisheries and Ford Notifiable Diseases Section, Hook Rise South, Tolworth, Surbiton KT6 7NF.

15. National Association of Mining History Organisations, c/o Dr R Burt, Department of Economic and Social History, University of Exeter, Amory Building, Rennes Drive, Exeter EX4 7RH.

16. National Register of Archives, Quality House, Quality Court, Chancery Lane, London WC2A 1HP.

17. The River Purification Authorities (7 Boards and 3 Islands Councils)

Clyde River Purification Board
Rivers House
Murray Road
East Kilbride
G75 0LA
(Tel: 03552 38181/6)

Forth River Purification Board
Heriot-Watt Research Park
Avenue North
Riccarton
Edinburgh
EH14 4AP
(Tel: 031 449 7296)

Highland River Purification Board
Strathpeffer Road
Dingwall
IV15 9QY
(Tel: 0349 62021)

North East River Purification Board
Greyhope House
Greyhope Road
Aberdeen
AB1 3RD
(Tel: 0224 248338)

Tay River Purification Board
3 South Street
Perth
PH2 8MG
(Tel: 0738 27989)

Solway River Purification Board
Irongray Road
Newbridge
Dumfries
DG1 1BL
(Tel: 0387 720502)

Tweed River Purification Board
Burnbrae
Mossilee Road
Galashiels
TD1 1NF
(Tel: 0896 2425)

Environmental Health Department
Orkeny Islands Council
Council Offices
Kirkwall
Orkney
KW15 1NY
(Tel: 0856 3535)

Environmental Health Department
Shetland Islands Council
Town Hall
Lerwick
Shetland
ZE1 0HD
(Tel: 0595 3535)

Environmental Health Department
Western Isles Islands Council
Council Offices
Stornoway
PA87 2BW
(Tel: 0851 3773)

18. Ordnance Survey, Romsey Road, Maybush, Southampton SO9 4DH. and 160 Causewayside, Edinburgh EH9 1UX.

19. Royal Commission on the Ancient and Historical Monuments of Scotland, 54 Melville Street, Edinburgh EH3 7HF.

20. Royal Scottish Geographical Society, 10 Randolph Crescent, Edinburgh EH3

21. Subterranea Britannica, 96a Brighton Road, South Croydon CR2 6AD.

22. The Air Photographs Unit, The Scottish Office Environment Department, New St Andrew's House, Edinburgh EH1 3SZ.

23. Her Majest's Industrial Pollution Inspectorate, 27 Perth Street, Edinburgh EH3.

24. Scottish Enterprise, 120 Bothwell Street, Glasgow G2 7JP.

ANNEX G: USE OF COMPUTER SYSTEMS

Computer systems can be helpful in the creation, maintenance and use of registers. There are several categories of computer operation that might be used, separately or in combination:

- word processor software to prepare and maintain the record of use of each identified site, maintaining a copy of all records on disk;

- a database for storing and maintaining all records, and carrying out statistical analysis;

- graphics packages with image scanners and digitising tables for transferring map images onto computer screens, allowing transfer from one map to another and thus creating boundary outlines;

- geographical information system (GIS) with graphics workstations for providing visual access to information through maps displayed on screen and cartographic overlay systems;

- management systems for organising register preparation work and monitoring work progress; and

- management systems for monitoring the register, including security of information, reports on use and changes to information;

Some local authorities may chose to extend existing database and/or GIS systems, or introduce new systems, to link their existing information with register information to extend the use that they can make of the combined data.

Register preparation

During preparation of registers, significant amounts of information will have to be searched before complete records of the use of a particular area of land are completed. This will require partial records to be maintained in the meantime. Word processors and databases can make this easier.

During preparation, there will also be considerable work in transferring area boundaries from historic maps to contemporary maps and referencing points with OS coordinates. The use of software packages including computer aided draughting will be of assistance, particularly where scales on old maps must be recomputed to correspond with current maps.

Use of a computer system to track progress and thoroughness of coverage of source material may be of benefit.

Register use and maintenance

Some authorities may choose to provide register information to the public on a computer screen. Care will have to be taken to make these systems easy to use. They must also be limited to "read only" access to maps and records.

Word processors, holding a complete collection of records available, will make the task of updating and adding new information more efficient.

A more advanced database system will simplify the task of maintenance and make it possible to report on changes made to the register.

Some authorities may choose to add more features to their systems in order to use the register data for other purposes, e.g. studying environment statistics, developing land use or reclamation strategies, and making information available to other bodies.

ANNEX H: A TYPICAL REGISTER ENTRY ILLUSTRATING STANDARD FORMAT

Identifying Information

Record Number: :853
Customary name of site :"Mafeking Road Works"
Local Authority :Invertay DC
Region :Strathtay
District(s) :Invertay
Civil parish(es) and/or Ward(s) :Tay Ward

OS Map sheet number(s) :XY53NW
OS Map scale :1:10000
Planning Authority Base Map number(s) or OS reference :26CP

This record last updated: 5 August 1993

Site Grid References

XY 51274 39187
XY 51271 39201
XY 51293 39198
XY 51297 39191
XY 51295 39185

Area (hectares): 6.5

Reference(s):

6" County Series map 1849,
6" County Series map 1889,
25" County Series map 1910 (address from Jones Directory of Traders 1908 page 23),
25" County Series map 1920 (address from Hat Trade Circular 1923 page 7)
1:2500 map 1963

Correspondence between source(s) and contemporary map:

Accurate

First entry made: 31 May 1992

Historic address

Address 1:

Name: Bland Works
Street: East Street
Village: Shoreside

Source: 6" CS map 1849

Address 2:

Name: East Works

Street: Mafeking Road
Village: Shoreside

Source: Jones Directory of Traders 1908 page 23

Last update: 5 August 1993

Current address

Address 1:

Name: East Works Site
Number: 3-7 (odd numbers)
Street: Mafeking Road
Village: Shoreside
Town: Invertay
Postcode: TL7 3PQ, Grid Reference centroid XY 51272 39195

Entry made: 31 May 1992

History of use

Use 1:

Use: Tannery
Operator: Bland
Start date: 1841
End date: 1918
Sources: 6" County Series map 1849; 6" County Series map 1889; History of Shoreside Local Industry 1963. Linked use in area 851, use 1, ending ?, known ended by 1889

Use 2:

(concurrent with use 1)
Use: Hatter
Operator: Knight
Start date: ? - first reference 1889, known not operating in 1849
End date: ? - last reference 1923, known not operating in 1927
Sources: 6" County Series map 1889; 25" County Series map 1910; Jones Directory of Traders 1908 page 23; Hat trade circular 1923 page 7; History of Shoreside Victorian Industry 1963.

Use 3:

Use: Engineering Works - metal products
Operator: Parratt
Start date: ? - first reference 1937
End date: 1978
Sources: 1:2500 map 1963; Institute of Business Equipment Directory 1941.

Use 4:

Use: Works demolition
Start date: 1978
End date: 1979
Source: Authority Engineering Department Report QQQQ 1978.

Last update: 5 August 1993

Summary of Use

C12a Tannery: 1841 - 1918
C12b Hatter: 3rd quarter of 18th century - 1920s
C8a Engineering Works (metal products): 1937 - 1978
C16d Demolition of works 1978-79

Current use

Commercial

Investigation or treatment

Site investigation:

Tests for heavy metals
Date: 1981
Source: Authority Land Inspection Report RRRR 1981.

Treatment A:

Treatment: (Partial) excavation and/or removal
Date: 1982
Source: Local authority internal report SSSS 1982

Treatment B:

Treatment: (Partial) containment
Date: 1985
Source: Consultants report for Biggs developer 1985

References to Profiles etc

See Profiles:

Animal Processing; Miscellaneous (High Street) Trades; Engineering Works

ANNEX I: ACCURACY OF INFORMATION

The following specifications for accuracy are proposed. They take into account the fact that the source material, especially maps made before the 1920s, may not be accurate by modern standards. It is possible in some cases to improve the accuracy of the historic information but this is not always feasible.

Use and period of use

Information on land use and the dates over which it took place should be recorded as found in historical sources. In cases where different historical sources contradict each other and the contradiction cannot easily be resolved, all uses shown in sources should be recorded with their dates. An indication should be made in the record that the information is contradictory, not complementary.

It is possible that different historical maps will identify areas with different uses which overlap. Where such contradictions cannot be resolved, all areas and uses shown in sources should be recorded and a reference made in each record to indicate the contradiction in use in the different sources.

Boundaries

Boundaries will be designated using polygons. The vertices of polygons will be recorded using 12 (alpha-numeric) character Ordnance Survey grid references. This gives a maximum possible resolution to a 1 metre square.

The rules suggested for accuracy reflect the level of detail in a particular area of a map. Where the boundaries of historical sites correspond to present day boundaries, these should be identified. Where this is not the case, the area of the historic site should be recorded, replicating the accuracy of the source map.

Initially this will done by measuring the position of the site on the source map. However, the correspondence of the grid coordinates of common adjacent features, such as buildings, roads or rivers shown on both maps, should be checked and the site position adjusted if necessary to improve the correspondence relative to all adjacent common features.

Inaccuracies in historic maps may cause a boundary of a site being transcribed to be placed inaccurately relative to features also present on current maps. In this case, the part of the boundary in question should be adjusted in order to make consistent its position relative to nearby features.

In areas where there are few features with which to verify positional accuracy, the recording of boundaries should be within the constraints of the source maps. Polygons may be simplified so that no point on a polygon edge is more than a certain distance away from its corresponding point on the actual boundary. This distance is specified as 5% of the shorter side of the smallest rectangle that can be drawn around the site. Common features on both maps should maintain their relationship to the boundary. Positional adjustment of the boundary to take account of relative positioning to common features should be made as described above for developed areas.

Sites identified from sources other than maps (eg historic trade directories) may be referenced by historic address rather than by a map position. Using historic maps, and the guidelines above, the address should be located and the site should be positioned as accurately as possible.

Where a decision is made to relocate the position of a transcribed boundary in relation to its position on an historic map, a note should be made that the boundary position has been adjusted.

ANNEX J: PROPOSED CONTENTS OF A PROFILE OF A CONTAMINATIVE LAND USE

J.1 Explanatory introduction, common to all profiles. This will explain the purpose of profiles and, in general terms, how to use them.

J.2 Introduction to the individual profile, identifying the processes analysed.

J.3 Details of the processes covered and of related operations and activities:

a. History: dates and periods of processes and operations profiled.

b. Present status of processes and operations.

c. Geographical characteristics of processes: details of distribution and favoured types of location.

d. Typical sizes and any distinctive characteristics of sites used for processes.

e Raw materials: types, properties, quantities, condition.

f. Description of processes and related operations such as shipment, storage and disposal of materials. Details of changes in processes and operations over time. Details of potentially contaminative aspects of activities.

g. Nature of by-products and waste products and permitted methods of disposal.

h. Details of any subsidiary or related activities with potential for contamination.

J.4 Effect of contaminative use:

a. Nature of likely ground contamination. Nature of hazards and probability of risks.

b. Nature of hazards and probability of risks to ground and surface waters.

c. Advice on recognition of contamination, toxicity and need for action or special precautions.

J.5 Further information: sources of information on the industries profiled, bibliography, references to other relevant profiles.